REMARKS/ARGUMENTS

In the Office action dated December 5, 2003, the Examiner objected to the Specification and rejected claims 21 - 24 under 35 U.S.C. §§ 102 or 103. Claims 1 - 20 were allowed.

By this Amendment, claims 1, 21 and 22 have been amended. Claims 1 - 24 are now presented for reconsideration.

Response to the Examiner's Comments Regarding an Information Disclosure Statement

The Examiner noted that he has not considered the references cited in the Specification at page 12 because they were not submitted in an Information Disclosure Statement. Applicant will file any reference to be considered by the Examiner in an appropriate Information Disclosure Statement.

Upon review of the file for this application, Applicant discovered that the Examiner has not acknowledged that he has considered Applicant's Information Disclosure Statements filed on July 9, 2002 and February 6, 2003. Applicant requests that an initialed copy of the respective FORMs PTO/SB/08B be entered in the application file and returned to Applicant with the next communication from the Office in accordance with MPEP § 609.

Response to the Objections to the Specification

The Examiner objected to the disclosure because of several "informalities." Applicant has amended the Specification as suggested by the Examiner. In addition, Applicant has corrected a typographical error at page 10. Applicant submits that no new matter has been added by this Amendment.

Applicant's Comments Regarding the Amendment of Claim 1

Applicant has amended claim 1 as set forth above to clarify the claim. This amendment does not narrow the scope of claim 1.

Response to the Rejection of Claim 21 Under 35 U.S.C. § 102.

The Examiner rejected claim 21 under 35 U.S.C. § §102 as being anticipated by Farjad-Rad et al., U.S. Patent No. 5,799,048.

Claim 21 now recites, in part: "the charge pump combines the first signal and the second signal to generate an output signal that is dependent on the phase difference but is not dependent on the data pattern."

Farjad-Rad et al. does not teach or suggest this aspect of claim 21. In the Office action the Examiner states that Farjad-Rad et al. discloses "the half rate phase detector provides a first signal (fig. 3 element X1) and a second signal (fig. 3, element X2), the first signal dependent on the phase difference between the data input signal and the clock signal, and also dependent on the data pattern (col. 4, lines 12-20), the second signal dependent on the data pattern (col. 4, lines 52-61)." Farjad-Rad et al. does not teach or suggest however, that "the first signal and the second signal" may be combined "to generate an output signal that is dependent on the phase difference but is not dependent on the data pattern." Accordingly, Applicant submits that claim 21 is not anticipated by or obvious in view of Farjad-Rad et al.

Response to the Rejection of the Claims Under 35 U.S.C. § 103.

The Examiner rejected claims 22 - 24 under 35 U.S.C. § §103 as being unpatentable over Farjad-Rad et al. in view of various combinations of Oguchi et al. and Dalmia. Each of these claims depend on independent claim 21.

As best understood, these references, considered either separately or in combination, do not teach or suggest a clock and data recovery apparatus where "the charge pump combines the first signal and the second signal to generate an output signal that is dependent on the phase difference but is not dependent on the data pattern" as claimed in independent claim 21. Accordingly, Applicant submits that claim 21 is not anticipated by or obvious in view of these references.

Claims 22 - 24 that depend on claim 21 also are patentable over the cited references for the reasons set forth above. In addition, these dependent claims are patentable over these references for the additional limitations that the dependent claims contain.

SUMMARY

In view of the above amendments and remarks it is submitted that the claims are patentably distinct over the cited references and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above Application is requested.

Respectfully submitted,
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